AMENDMENTS TO THE CLAIMS

The listing of claims below replaces all prior versions of claims in the application.

1-12. (Canceled).

13. (Currently Amended) A method for producing fullerenes in which a hydrocarbon-containing material gas and an oxygen-containing gas are discharged from a discharge portion provided in a fullerene reactor into the fullerene reactor and burned under reduced pressure, characterized in that:

an average discharge velocity ~~rate~~ of the hydrocarbon-containing material gas and the oxygen-containing gas discharged from the discharge portion into the fullerene reactor is 2 m/s or higher ~~than 0.75 m/s~~ but not higher than 10 m/s, and

the elemental ratio of carbon in the hydrocarbon-containing material gas with respect to oxygen in the oxygen-containing gas at the time of burning the hydrocarbon-containing material gas is 1.08 or higher but not higher than 1.56.

14. (Currently Amended) The method for producing fullerenes according to claim 13, wherein the average discharge velocity ~~rate~~ of the hydrocarbon-containing material gas and the oxygen-containing gas discharged from the discharge portion is in a range of ~~1 m/s to 6 m/s~~ 2 m/s to 6 m/s.

15. (Currently Amended) The method for producing fullerenes according to claim 13, wherein (V·P) is in a range of 30 m·torr/s to 1000 m·torr/s, with V m/s being the average discharge velocity ~~rate~~ of the hydrocarbon-containing material gas and the oxygen-containing gas and P torr being a pressure in the fullerene reactor.

16. (Currently Amended) The method for producing fullerenes according to claim 14, wherein (V·P) is in a range of 30 m·torr/s to 1000 m·torr/s, with V m/s being an average discharge velocity ~~rate~~ of the hydrocarbon-containing material gas and the oxygen-containing gas and P torr being a pressure in the fullerene reactor.

17. (Currently Amended) The method for producing fullerenes according to claim 13, wherein a gas containing a soot-like material introduced into a soot-like material recovery device from the fullerene reactor has been cooled to be in a temperature range of 200°C to 700°C, and

the gas containing the soot-like material exhausted from the fullerene reactor is cooled at a cooling rate of 1000 °C/s or higher until reaching the recovery device.

18. (Currently Amended) The method for producing fullerenes according to claim 14, wherein a gas containing a soot-like material introduced into a soot-like material recovery device from the fullerene reactor has been cooled to be in a temperature range of 200°C to 700°C, and

the gas containing the soot-like material exhausted from the fullerene reactor is cooled at a cooling rate of 1000 °C/s or higher until reaching the recovery device.

19-20. (Canceled)

21. (Currently Amended) The method for producing fullerenes according to ~~claim 19~~ claim 17, wherein the gas containing the soot-like material exhausted from the fullerene reactor is cooled by forming a swirling flow in a pipe with a periphery cooled by a cooling medium.

22. (Currently Amended) The method for producing fullerenes according to ~~claim 20~~ claim 18, wherein the gas containing the soot-like material exhausted from the fullerene reactor is cooled by forming a swirling flow in a pipe with a periphery cooled by a cooling medium.

23. (Canceled)

24. (Currently Amended) The method for producing fullerenes according to ~~claim 23~~ claim 13, wherein the oxygen-containing gas has an oxygen concentration of 99% or more.

25. (Currently Amended) The method for producing fullerenes according to ~~claim 23~~ claim 13, wherein the hydrocarbon-containing material gas is preheated before being discharged from the discharge portion into the fullerene reactor.

26. (Currently Amended) The method for producing fullerenes according to ~~claim 23~~ claim 13, wherein the oxygen-containing gas is preheated before being discharged from the discharge portion into the fullerene reactor.

27. (Currently Amended) The method for producing fullerenes according to ~~claim 23~~ claim 13, wherein a burner with the discharge portion is provided at an upper portion of the fullerene reactor, and an exhaust portion for exhausting the gas containing the soot-like material produced in the fullerene reactor is provided at a lower portion of the fullerene reactor.

28. (Currently Amended) The method for producing fullerenes according to ~~claim 23~~ claim 13, wherein a fullerene content in the soot-like material produced in the fullerene reactor is more than 7% by mass but not more than 50% by mass.